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## (54) SELECTIVE GROWTH METHOD FOR CRYSTAL BY FOCUSING ION BEAM MASK WORK

(57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a selective growth for a crystal of high quality and precision by a mask work combining a focusing ion beam and chemical etching.

**SOLUTION:** A process where a wafer coated by deposition of a mask material 2 such as glass on a crystal substrate 1 is etched with a focusing ion beam, a process for chemical etching, and a process where a crystal 3 is grown again on the etched wafer, are provided. With this method, using a focusing ion beam for mask work allows high-precision and ultrafine work, while employing a mask work of a composite etching of chemical etching provides a crystal of high-quality and selective growth wherein a work damage which is a defect of focusing ion beam is reduced.



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